CLINICAL LECTURES

ON

SCROFULOUS NECK

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SURGERY OF SCROFULOUS GLANDS

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ON SCROFULOUS NECK.

GENTLEMEN,—The malady which will occupy our attention to-day* has arrested the attention of physicians from the earliest times of which we have any definite record to the present moment. So far as we may judge from the evidence before us, no age and no race of men in our own Continent have been beyond the reach of scrofula; all civilised men have striven with it, all kinds of remedies, rational or fantastic, have been set against it; kings and queens have willed the cure of princes and philosophers, as well as of humbler folk; images have been carried before patients in vain, lustral waters sprinkled in vain, and we doctors have to take up a task which is beyond the touch of kings or the conjurations of priests.

That the ugly finger of scrofula should be laid chiefly upon children, young men, and maidens, has this pathos in it, that it disfigures them at the spring-time of life—at that time when hope and promise make all life precious, and all death seem the loss of untold treasure; when beauty and gaiety have their fleeting day, and for the loss of them the world is poorer.

Eagerly, then, do we desire to disperse this evil burden, and to restore health and symmetry to the sufferers.

It is well known to most of you that scrofulous neck for the ancients made up the whole of "scrofula," a name derived from the scrofous or sow-like fulness which it imparts to the neck and jaws of the patient.† The Greek word χοίρας, in like manner, signifies both the animal and the disease. Dr. Philemon Holland, in his translation of Pliny, early in

* This lecture is one of an extra academical course given to undergraduates and graduates alike by the Consulting Staff of the Leeds Infirmary.

† Littré says the term comes from the fact that swine are subject to a like disease.

the 17th century, says that "A cataplasma of leaves and hog's grease incorporate together doth resolve the scrophules or swelling kernels called the 'King's evil'"—a medication derived from the doctrine of signatures, from the notion, that is, that natural objects often bear superficial similarities stamped thereon by an ingenious Providence as a means of indicating therapeutical affinities. In later times, however, we have given a larger meaning to the word scrofula. We no longer mean by it solely the neck of scrofula, but we include under that term a series—or supposed series—of morbid phenomena significant of a definite diathesis or supposed diathesis. It has been widely asserted that scrofulous neck, as one of these phenomena, cannot possibly occur out of the diathesis; that, say a gouty or dartrous person is incapable of scrofulous neck, and that scrofulous neck can be developed only in persons of a certain specific quality of body called scrofulous, and as a member of a series called "scrofula." Other members of the series are the impetiginous eczema of children, recurrent pituitous catarrhs on the mucous surfaces at all ages, certain glandular inflammations in youth and adolescence, certain diseases of bone likewise, and finally, certain quartenary or visceral degradation of a sub-inflammatory kind, all of which affections are marked by the issue of a more or less corrupt kind of pus, and a defect of healing impulse which Virchow has called a vulnerability of tissue. A certain primary conformation of body is also said to be the heritage of scrofulous persons; that in childhood they have a certain grossness of parts which vainly flatters the maternal eye; and in age, likewise, the same bigness without quality, of which the great lexicographer is the familiar instance.

It appears to me that these diathesis cannot be classified like dogs and cats, but they rather represent aberrations from the normal, which in their minor obliquities can scarcely be regarded as beyond the latitude of sanity. The wider the obliquity, however, the more several become the diathesis both from each other and from the path of health, and their qualities and movements more proper for definition and pre-

diction. The scrofulous diathesis is well marked when a patient in babyhood has scald head with associated cervical buboes; in youth, scrofulous neck; in adolescence, a white knee; and in adult life, catarrhal phthisis. If, however, we have a broken series, or still more if one of these phenomena occur alone in a life or even in a generation, the patient perhaps having no definite sign in scrofulous feature or proportion—and such cases often meet us in practice—then how are we always to agree with our learned colleagues who will not admit that scrofula can occur except in the originally scrofulous.

The argument would thus take this unprofitable form: Certain diseases can only occur in scrofulous persons, and because these diseases occur in them, therefore they are scrofulous. For my part I cannot regard scrofula as an *alterum quid*—a new quality of the body, as we regard syphilis—it seems, as I have said already, to be rather a deflection which may be induced by influences wholly external, and under these influences may manifest itself in an inferior healing power. That on the other hand, in the large majority of cases, a "vulnerability of tissue" is an inherited defect, and that an especial vulnerability of lymphatic glands runs in families is not to be denied, for such defects betray the original bad habit even under circumstances the most favourable. To deal then with scrofulous neck alone, as our subject for to-day, I believe that this disease may be produced in persons originally of healthy habit and of healthy stock if their external circumstances, or some of them, be sufficiently adverse, but that a disposition to such disease is more commonly inherited, and the greater the inborn frailty, the more readily will adverse circumstances produce it. In some persons, doubtless, the inborn frailty is such that the pressures and variations of ordinary conditions do not fail to initiate mischief in them.

Scrofulous neck is of course but one part of the glandular disease which may and often does invade the scrofulous subject. It is the most striking part, because in the neck and under the jaw it is evident, and destructive of beauty and

symmetry. It is also an early site for such outbreaks, appearing usually there before it may appear in the axilla or in the groin. Until later times, when pathological dissections became more common, the frequency of like caseation in thoracic or mediastinal glands, was scarcely realised, and still at the present day these inner changes are too obscure for popular discernment, and not uncommonly escape even that of the physician himself. It is a familiar doctrine that in all these cases the enlarged glands are buboes, by which I mean that they are secondary to irritation and absorbtion on and from their associated mucous surfaces.

Confining our attention, then, to scrofulous neck, we have learnt that chronic inflammatory enlargement of the glands of the neck is secondary to irritations in the associated mucous surfaces, and absorptions from them; the chief of these being the mouth and throat, and the next in order the nasal, aural and ocular surfaces. Irritations indeed upon the skin of the face and head are not without influence in the same direction, so that although the result be less common, yet glandular enlargements of the neck do occasionally owe their irritation to eczematous or other cutaneous disorders. We may feel tolerably sure that although in a given case we may be utterly unable to discover a peripheral cause for the enlargement of cervical glands, yet they do not, under the influence of this diathesis at any rate, enlarge "of themselves," but only in obedience to some peripheral irritation which may belong wholly to the part. When the scrofulous diathesis is well marked the glandular expansion may be so enormously out of proportion to the initiating peripheral cause that this latter, if fugitive, may never be measured nor even perceived. Now these considerations, although taught by every thoughtful clinician, do not sink into the mind nor exercise the observation of the medical public so thoroughly as they ought to do. No competent observer would overlook such an obvious peripheral cause, for instance, as eczema capitis, scarlatinal sore throat, flux from the external meatus, and so forth; but I think the daily and hourly activity of the pharyngeal

mucous membrane is not vividly realised in this matter. The mucous lining of the pharynx is a kind of screening machine which catches upon its moist surface and intercepts all that dust, organic and inorganic, which is drawn in with the air. Hence we know that these surfaces are constantly seeded with particles, many of them germinal, and not a few of them poisonous. Happily the membrane in its healthy state throws them off and allows no settlement to be made nor any germination to take place. All particles are promptly arrested and re-conveyed beyond the portals of the mouth, or consigned harmless to the stomach, and no local irritation arises on the surface nor any sympathetic change in the glands. But let us suppose for a moment that this mucous covering is something less than healthy. We know that in scrofulous persons the mucous membranes are not very sound nor resisting; the mucous they secrete is not very stable, but is liable to slip down into chemically lower degrees, and into degenerative cell changes. Herein the fermenting or irritating particles find a food or a soil in which they work after their kind, and thus, even unperceived, the fluids of the throat become, when absorbed, the vehicle of poison to the lymphatic glands adjoining. It is, perhaps, not necessary that the mucous surface be absolutely broken. Certain variations of moisture or density may suffice to favour absorption even through an unbroken surface. Let there be a trifling delay or languor of the epithelial function, and particles mechanically, chemically or vitally irritant will imbed themselves in the soft and absorbent vesture of the pharynx, and be themselves carried within or generate poisons upon the surface which are drawn inward. Again, by some vital mechanics a chill to the skin may disturb the nutrition of the membrane; if this occur in asceptic air, at sea, for instance, even the scrofulous subject may be quit for a cynanche; if it occur in foul air, but in a vigorous person, the mucous membrane may overpower the evil as strong turnips outgrow the fly. Again, in the glands themselves a temporary irritation may subside if the conditions of life be favourable, or on the other hand, may progress under adverse

circumstances, or in vulnerable constitutions. But the surface may be broken, broken but lightly and transiently, so lightly and transiently that he who seeks for the breach may fail to find it, yet a breach deep enough and enduring enough to set up that prolification in the glands behind it, which, in the scrofulous person, has no tendency to heal. Given the "vulnerability" it will suffice to start the process, it will suffice to admit the match to the heap, and the fire will smoulder on thereafter of its own activity. If we think then of the rain of organic particles falling incessantly by way of nose and mouth upon the lining of the pharynx in those of us who live under the purest physical conditions, the wonder will be not that scrofulous neck is generated, but that so many of us escape it. Given but a broken surface in the healthiest person and a sufficiently prolonged exposure to organic particles, and it seems certain that your scrofulous neck must at some point arise unless an originally high vitality be constantly favoured by healthful habits and surroundings otherwise healthful.

As among the less fortunate of mankind there must always be multitudes whose vitality and general resisting power are, on the other hand, constantly depressed, and who are at the same time breathing constantly an air laden heavily with impurities, we do not wonder that scrofulous neck has been a common and mischievous result, nor that a pure air and wholesome dwelling-place have been regarded as the chief means of cure. One source of impurity the scrofulous rich and poor enjoy in common—that is, the drain and the cesspool. Herein the rich have no advantage over the poor, indeed, herein, the richer classes fare perhaps worse than the poor, who often lack those gifts of civilisation, and are vulgarly content to cast forth their ordure to the sun and the winds. If I may make a guess on a matter of which I can know nothing definitely, I would guess that the emanations from foul drains are the unseen carriers of scrofulous neck to the greater part of its victims in the richer classes. It seems as if it must be so. No influence is so potent to lower general vitality, and no poison finds so readily its

home in the pharynx. Drain throat has become a common term in the last few years, and every day we recognise such throats by their appearance alone. In these cases the superficial mischief is ample and patent; but in how many more is it, although slighter and milder, yet strong enough and baneful enough to set up unhealthy buboes in persons thereto disposed! The question thus, in my view, is reduced to one of the degree, duration and kind of local irritation acting upon subjects vulnerable in all degrees. When heredity is dominant local causation may take, no doubt, a lower place; where heredity is less, local causation is more, and where it is absent local causation rules for a time alone. Next to that of the mouth, gums, and throat, the mucous lining of the ear seems to be most ready to propagate secondary mischief in the cervical glands. It seems probable that in all cases the irritation is first propagated from the mucous surface to the minute nodules of lymphatic tissue which lie immediately under the mucous membranes, and that from these the evil is forwarded to intermediate lymph centres, and thus to the principal lymph glands in the neck. These, which in the normal state are barely palpable, gradually enlarge and succeed each other in chains, not larger at first than shot, but some of them ultimately increasing to the size of walnuts, or even of a small orange. At first the glands, on section, show no caseation, but a pale transparent and uniform section. Neither at this stage, nor afterwards, is there any symmetry of disease between the two sides of the neck. In this stage the glands may return to the natural state, the hyperplastic material being re-absorbed.

If the malady progress, however, caseation begins at multiple centres within each gland, which centres become fused, until the whole gland becomes a cheesy mass. In the first stage it would be difficult, and, without collateral evidence, perhaps impossible, to distinguish scrofulous glands from those of lymph-adenoma. But as the infection becomes more distinctly inflammatory the diagnosis clears itself even to the explorer's finger. These bodies are no longer, as in lymph-adenoma, isolated, freely moveable, uniform and

painless, but soon they form adhesions to the surrounding tissues and to each other; they become tender on pressure, and slight nodulation of their surfaces is to be noticed. The same contrast helps us to distinguish these scrofulous glands from enlargements far more likely to embarrass our diagnosis, namely, from the albuminoid glands of rickets. The aspect of the scrofulous child, however, is rarely to be mistaken for that of the rickety, nor has it the peculiar chlorotic skin of the latter.

Once more: we have hitherto considered the mucous membrane as peripheral to the lymphatic system; let us now call to mind the like effect which would be produced by some one degenerate gland as peripheral to the rest. I have proved, or had proved for me by the revelations of the surgeon's scalpel, that a forgotten surface irritation may have inflamed a few glands and have passed away; the glands themselves likewise passing away so far as the eye and hand could tell, but not altogether. One small, and perhaps deep-seated, enlargement may remain—a lump not larger than a pea—this may slowly caseate, and, in the course of months, or possibly of years, become the focus of spreading poison to others; new activities then come on, successive glands in their turn enlarge and caseate, and scrofulous neck becomes established as a secondary event long after the primary affection of the mucous surface has disappeared and been forgotten. Such a state of things would be what lawyers call "consequential damage." Now, here no purification of the mouth, throat, or ear, would avail to remove the trouble, for it comes from a source which is beyond our reach, and even beyond our ken. Such cases of secondary bubonic development are, I believe, very common, and the knowledge of this possible sequence should put us on our guard against any careless dealing, even with the smallest and most isolated bubo. In a scrofulous person it may ultimately be the source of most troublesome mischief.

Now, gentlemen, with your permission, we will pursue this matter a step further.

A short time ago I referred to certain distinctions between

the enlarged cervical glands of scrofula, lymph-adenoma, and of rickets, and some points of distinction then severally noted may be summed up in scrofula as features of chronic inflammation. In it not only do they inflame with a slow destructive process within, but a capsular inflammation extends from gland to gland, matting them together; this, in its turn, propagates inflammation to the cellular tissues and the skin; glands, subcutaneous tissues and cutaneous becoming involved in a general process of low inflammation. We have then chronic caseating adenitis, chronic suppurative cellulitis, and chronic suppurative dermatitis. These inflammations being, as I say, only partially adhesive in nature, and largely necrobiotic, lead not only to the softening of the glands themselves, but to the formation of cellular abscesses, more or less sinuous in distribution, between and around the glandular necrosis. As the glands soften and burst, then a system of channels and pockets, of cells and passages, is formed, some pockets lying deep where glands lay deep under a muscle, such as the sterno-cleido-mastoid, others lying more superficially. From the lower to the upper source channels of communication may be established, or some of the deeper glands may be imprisoned in surrounding adhesions, and their products of degeneration have no outlet. Some glands are partially hyperplastic, with but nodules of caseation; others have softened in part, are caseated in part, and are simply hyperplastic in part. Others have wholly softened, and are represented by pockets of corrupt pus. As the skin is involved and becomes reddened and tender, the outward determination of the morbid products is hastened, the skin gives way, and cellular or glandular abscesses are emptied gradually as the establishment and the drainage of sinuses may permit. Nature thus works some kind of cure, sometimes a perfect cure, sometimes a very partial one; as from deeper glands or cellular abscesses no free issue to the light may ever be established. Some parts of the mass, and these probably the remoter, and therefore the more dangerous, may remain unemptied, and abide in their breaches as means of offence in time to come. Nature's cure is thus seen to be of a

haphazard and unsatisfactory kind. Still, a cure does commonly take place, after years of disease, at the cost of permanent scarring of the neck, and probably at a far greater cost than this. *Nec causas solum sed exitus etiam rerum cognoscere oportet.* We cannot flatter ourselves that the patient is to be quit for his local embarrassment and his scars; his general health suffers, and soon is established the morbid see-saw, feeble tissue vitality admitting the incursions of local poison, and in its turn the local workings farther depressing the systematic health, each thus intensifying the other until the strands of life itself become strained. Septic matters are absorbed into the blood, recurrent and variable hectics dissipate the appetite, flesh, and strength, so that the patient finds himself at the end of it all, if not unsound in his internal organs, at any rate a far worse man than he would have been had this trial been spared him. Yet, even if it be but thus with him, he has still reason for congratulation. But too often a few years of "ecrouelles" means the implantation of the seeds of phthisis, of which disease he may die early. It must not be supposed that death by phthisis will usually spring up in him by virtue of inheritance alone. It supervenes at one time as the result of that general asthenia, that diminution of vital and nutritive values which long suppurations leave behind them, at another time as a consequence of the inoculation of the system with tubercular virus. Our knowledge of the tubercle bacillus is as yet too young to tell us whether scrofulous neck always depends upon the introduction of the tubercle bacillus by way of the mucous membrane of the throat or otherwise—too young, indeed, even to tell us whether the tubercle bacillus is an essential part of scrofulous neck at all. We know that it may be found there, and that scrofulous neck has of late years been regarded as morphologically tubercle, so that we are safe at least on the broad postulate that inoculation from sources of corrupt or caseating pus does very commonly set up a more or less generalised tuberculosis.

Our scrofulous patient, therefore, runs three risks in the

continuance of his local malady over and above his faulty inheritance, namely, first, a tedious local disease, followed by a peculiarly unwelcome disfigurement; secondly, the fear of deterioration of his general health thereby, such that his best years of adolescence are spoiled, and his entrance into manhood thwarted and weakened; thirdly, an inoculation of the system with elements which favour the development of more general tuberculosis. Now, how are we to avoid these evils? In the first place, whenever we have reason to suspect the scrofulous diathesis in young persons, we should secure, as far as possible, under these circumstances, the favour of pure and invigorating air, of sunlight, and of good food. We should most jealously watch the sanitary conditions of the dwelling or school-house, and prevent the possibility of the contact of infected air, water, or milk. We should especially watch the lining of the throat, mouth, ears, and so forth, and stop any tendency to unwholesomeness of the surfaces or secretions of these parts. If children inheriting such tendencies can be placed at the seaside, or in the fresh air of such health resorts as Harrogate, we shall help the growing body to rise above its original defects, and to mould itself on stronger lines. If in some early degree enlargement of the sub-maxillary and cervical glands has already taken place, these precautions will be the more needful. If we find the glands smooth, and free from all nodulations, isolated and non-adhesive, we may almost promise a cure, if the constitution be fairly robust, by a residence at Margate, together with other due cares. Such glands, on the entire removal of baneful outer influences and the promotion of the general health, will probably resolve. The dietary is to be dictated on principles already sufficiently familiar to you all, and cod liver oil will probably form a part of it. Medicines which favour the growth of red blood, and stimulate appetite and digestion, will be added. Of specifics there are few. I am satisfied, however, that the cautious use of mercury, say of the solution of the bichloride with tincture of iron, is desirable, unless the inborn frailty is very marked; and iodides with iron are likewise valuable.

External applications should be cautiously used; and in my own practice I have relied but little upon them. At any rate, it is certain that harm may be done by them if not most cautiously and judiciously managed. A well diluted ointment of iodide of mercury in proper cases is the most efficient means of this class.

So long as the glands remain free from adhesions and smooth on the surface, such remedies as the above may suffice to dissipate the malady; the removal to the sea-side being by very far the most potent of them.

So soon, however, as the glands become adherent, either to each other or to the surrounding tissues, so soon as they present small nodulations on their surfaces, caseation has begun, softening will succeed, and however great may be the benefits to be bestowed on the general health by climatic and medicinal remedies, yet we cannot at all rely upon the removal of the local mischief by these.

I say we cannot rely upon the removal of it. Not infrequently, indeed, scrofulous necks of some inveteracy and severity have been and are cured by residence at Margate. But such means are not in the power of all people, and if they were, we still stand the risk of ultimate ill success, or the risk of shaking the constitution still farther by a continuance of the disease, and we give greater opportunities for the inoculation of the system with active or dormant tubercle.

These considerations, gentlemen, pressed so strongly upon my mind some years ago, that I found for myself a shorter way out of the difficulty, a way which puts an immediate term to the disease, and which abridges what I may call the septic or tubercular opportunities of the malady. These reasonings, and some of their results, were published by Mr. Teale and myself at the International Medical Congress in 1881. I called in the surgeon to my aid on the modern principle of *ubi pus ibi exitus*. Wherever septic material is contained in the system, we rest not till it be expelled, and its burrows laid open and disinfected. The knife has been used hitherto freely enough in scrofulous neck, on the principle laid down by Sir James Paget, namely, to wait till the

skin warms, reddens, and fluctuates, then to make a clean incision, permit simple evacuation of the present matter, but not to squeeze, nor even press, the surrounding parts. We are to wait until a new area of softening be obvious, then repeat the process, and so on. Now, gentlemen, this is palliative surgery, but it is not curative surgery. It scarcely alleviates the cause of the disease; indeed, it does little more than substitute a fine and clean for a foul cicatrix. My proposal is a curative surgery, and it is now founded upon a wide basis of successful instances. It so happened that some of my earlier cases were referred by their friends to Mr. Teale, and consequently he and I so thoroughly discussed the matter together, that we found it convenient to work together in like cases, though I need scarcely say that others of my colleagues would have led me forward with a like ability; so it was, however, that we fell together on the matter, and continued to co-operate.*

My purpose, and the purpose of the surgeon, whoever he may be who holds my views, is radically to extirpate every caseous gland or portion of gland, and so quench promptly the smouldering fire. At first, we naturally had for our patients only those sufferers whose endurance was exhausted, and who willingly accepted any way, however doubtful, out of their sufferings. Gaining courage, however, by our success even in the worst cases, we are advising the radical operation more and more, until, I may now mention it as one of our best means from the moment that caseation, however limited, is manifest. Recent instances lead me to hope that if such a practice become universal, scrofulous neck and all the hectic, asthenia, emaciation, and phthisical risks which belong to it will become matters of history.

It is needless to say that the surgical procedure does not do away with the value of sea climates, good food and

* I do not for a moment pretend that eradication of scrofulous mischief in the neck by the knife and scoop is an original idea of my own. It occurred to me independently, as it doubtless occurred to many other physicians. I believe, however, that the idea has never been worked out so completely, nor in so many cases, as by Mr. Teale. Indeed, on hastily turning up the subject with the aid of "Neale's Digest" and "Virchow's Jahresbericht," I am surprised to find how little has been done by others on the same lines.

tonic medications, but it does put an end to those constitutional infections, which make such means more necessary. Where in-born frailty is strongly marked, such means are still to be added, and in a few very vulnerable patients the surgeon may be compelled to call in the aid of Margate in support of his undertaking.* But such cases are the minority; many persons affected with cervicle scrofula are not originally of bad physique, and these persons, whom we meet daily, can be cured by the knife alone, always directly and sometimes rapidly. When, after years of smouldering, inflammation and caseation group after group of glands have become involved, it would be unwise perhaps, even were it possible, to enucleate the whole mass either in one sitting, or in instantly successive sittings. It is not a part of my commission to-day, gentlemen, to describe to you the operative part of the radical cure; this chapter will be enlarged upon by Mr. Teale, on the 17th December. But, in general terms, the aim which the surgeon must set before himself is to open all sub-cutaneous abscesses, to trace them to softening glands, to enucleate these, and to lay open all sinuses which lead to deep-lying glands, often concealed behind muscles or fasciæ, and to so completely eliminate all decaying tissue, and so cleanse the bed of disease that healing may be rapid and complete. In a severe case several operations, even six or eight, may be needed to secure a stable result; but it is surprising to see how quickly the general health rebounds after the two or three first sittings. Finally, we claim not only to cure, but to beautify the patient, for if conveniently and neatly managed, the scars of the surgeon are so clean and fine as in a year or two to disappear altogether. To secure this desirable end, it is important, even at the risk of a repeated operation, to avoid the prolonged use of a drainage tube, for after such a procedure a denser and rougher scar remains behind.

Gentlemen, I thank you sincerely for your kind consideration.

* I believe that by systematic enucleation and evacuation on the radical system, the stay of all scrofulous patients at Margate could be abridged, and the benefits of it enlarged.

ON THE SURGERY OF SCROFULOUS GLANDS.

FEW subjects better illustrate the increasing tendency in modern times of the work of the physician and of the surgeon to be drawn to a focus of common action than that of scrofulous glands. The definite principles on which the surgeon attacks degenerating and suppurating glands whenever within reach have taken form within very recent years, and have derived their impetus mainly from two lines of thought — one, the fundamental one, established by the physician, that such degenerate structures, even when not suppurating, are centres from which health-damaging and death-dealing material may be diffused throughout the human frame; the other, established by the surgeon, that septic suppurating cavities and sinuses can be deprived of their injurious qualities, and converted from chronic sores into rapidly healing surfaces, by the vigorous employment of the scraper invented by Volckmann and improved by Lister, which enables him to achieve work which cannot be so thoroughly or easily effected by the knife.

It was a happy arrangement by which this course of clinical lectures by the consulting staff of the Leeds Infirmary was inaugurated by a lecture on the physician's side of the question, and is followed by a complementary lecture on its surgical aspect. And this sequence is all the more marked, inasmuch as a great portion of the surgical work on which my lecture is based, has been done at the request of Dr. Allbutt, in order to satisfy his cravings as a physician for the riddance by surgery of those poisonous structures which barred the way to the successful treatment of his patients. The data which I shall bring before you are drawn chiefly from my private practice, and for this reason, that I have been able to watch the cases thoroughly from beginning to end, and to obtain more accurate statements of the results

than is possible in the case of hospital patients. I need hardly say that a great deal of work of the same kind has been done in our infirmary by my colleagues and myself. The list of cases which I produce was compiled by Mr. R. N. Hartley from my notes three years ago, in order to illustrate the paper read by Dr. Allbutt at the International Medical Congress in 1881, and, by misadventure, was but partially recorded in the Transactions. I have not thought it necessary to add to the list by my more recent cases, which abundantly confirm the experience previously gained.

Let me introduce the question of treatment by a typical case which will be none the less telling that it was under the surgical care of a colleague.

In January, 1880, I was requested by Mr. Wheelhouse to meet him at Dr. Allbutt's chambers, that we might consult about a fluctuating swelling in the neck of one of his patients, a young lady, about 16 years of age. There was a large soft swelling below and behind the right ear, which had been emptied of pus by incision a year before. The incision soon healed, and the swelling reappeared in spite of iodine and other applications. She had now returned home after a year at Southport with the swelling as large as ever. Hence the consultation. The decision was that the pus containing cavity should first be emptied by the aspirator, and then, if it refilled, as was probable, that it should be opened, scraped, and drained. The cavity refilled, and in February, I assisted Mr. Wheelhouse in his "radical" operation. The swelling, about the size of a duck's egg, was situated over the sterno-mastoid muscle behind and below the lobe of the left ear. Mr. Wheelhouse made an incision about 1½ in. long in the posterior border of the swelling. The pus having escaped, the *subcutaneous* cavity was scraped out thoroughly, and no gland was found. Now we come to the cardinal point in the surgical treatment—I might say in the radical cure—of a large number of these cases of degenerating glands. Profiting by previous experience we searched with the point of a director, and found, as was suspected, a small hole through the deep cervical fascia that

would barely admit the tip of the little finger. This led to the defaulting gland in its hiding place beneath the sterno-mastoid. The opening was enlarged, and the caseous, half-decayed lymphatic gland was unearthed by Lister's scraper. After vigorous scraping and cleansing, and washing by carbolic lotion (we had not then arrived at iodoform), a drainage tube was inserted. The tube was left in nearly two months; its removal was rapidly followed by healing, and the neck has been perfectly sound ever since. At the present time, four years after, the scars of the two operations are faint white lines barely an inch long, with hardly a suspicion of dimple. She is healthy and has a good colour, having been before the operation pallid and pasty, and her friends say, "she is not like the same girl at all."

Now, what do we learn from this case? We learn *first of all* the absolute inutility of merely incising or otherwise opening an abscess dependent on a degenerate gland which lies beneath the deep cervical fascia.

We learn, in the *second* place, that the visible abscess, which would often be called a strumous suppurating gland, is merely a subcutaneous storage reservoir of pus, and that its source, a degenerate gland, is not subcutaneous, but sub-fascial—*i.e.*, under the deep cervical fascia, and perhaps even sub-muscular, the communication between the two being by a small opening just large enough to admit a probe, and easy to overlook if it be not carefully looked for. Herein lies the explanation of the chronic sinuses discharging for years, and healing, if they do heal, with a conspicuous depressed scar, with perhaps subcutaneous burrowings lined by ill-favoured granulations, or an open indolent sore healing at last with a cheloid deformity.

We learn, in the *third* place, that suppuration long existing may be brought to an end in the course of a very few weeks, if the source of it be recognised and *vigorously* attacked. *Sublatâ causâ, tollitur effectus.*

We learn, in the *fourth* place, that the mark left by prompt surgical interference is not deforming, scarcely dimpled, and is utterly insignificant compared with the ugly

scar resulting from a sinus allowed to heal at its own leisure after discharging, it may be, for months or years.

The next case was sent to me in October, 1877. Mr. S., of K., aged 27, having been advised to winter abroad on account of symptoms of commencing disease of the lungs, was urged by Dr. Allbutt to have a chronic discharging sinus in the neck surgically attended to before leaving England. For several years he had been subject to enlargement of the cervical glands, for which he had undergone all kinds of medicinal and external (local) treatment, but with no good result. The sinus in the neck was incised and enlarged, and cheesy remnants of degenerate gland tissue were found and scraped out. This sinus, from which, according to his account, there had been a constant discharge *for several years*, was quite healed *in five weeks* after the operation. A year later the scar was pale, non-adherent, and scarcely visible. There had been no further enlargement of glands, there was no evidence of disease of lung, and he was in robust health. Can there be any reasonable doubt that in this case the half-decayed gland, with its septic track, was a serious factor in his depraved condition of health, and that, even if it were not the active cause of his threatening pulmonary disease, it must have proved a serious impediment, if not an absolute bar, to the happy recovery of lung which took place?

And what is the special lesson taught by this case? That it lies with the physician to appreciate the vital importance of any septic complication in a patient suffering from, or threatened with, visceral disease. That it is possible for the surgeon to quickly put an end to many sources of chronic poisoning of the system, and so to give fair play to the means of restoring health which are at the command of the physician.

The next case which I shall bring forward is that of Walter Speight, an Infirmary patient, now present. He has been operated upon *nine* times during the last five years, and now seems to have come to the end of his troubles. On the first occasion the gland had suppurated, and was dis-

charging. In all the other operations the glands were removed or scooped out before the skin had given way. In some instances the glands were suppurating, in others enlarged glands were enucleated before they had broken down. As soon as a fresh gland inflamed he came and begged me to remove it, so great was the discomfort he endured, so marked was the relief that he obtained by operation. We learn from this case the value of persistency both in patient and surgeon; in the patient, in not being content until every source of discomfort and of deformity has been removed; in the surgeon, in not holding his hand as long as work remains to be done. If it be right to remove one degenerating gland, it is right to work on to a logical conclusion, until all removable compromised glands have been got rid of. The case teaches us also that we need not be deterred from our good work by fear of a deforming scar, and that it is possible, provided the skin be sound, so to remove a gland as to leave a scar that shall be insignificant. In two instances beside, the patients being young ladies, have repeated operations been performed with most gratifying results. One has now been in good health for nearly two years since her last operation; the other has just undergone what I hope will prove to be the last of her series. Both were most eager to have their incumbrance removed, reckoning the mark as nothing compared with the increase in comfort, rapid recovery, and improvement in health which they had experienced.

Let us take another case. Miss B., aged 11, was brought to me in July, 1879, with chronic enlargement of cervical glands following an attack of sore throat, probably caused by defective drains. A sinus connected with the glands had been discharging for six months, and at another point an abscess was making for the surface. Operations were performed on two occasions. On the first the sinus was enlarged and scraped, and the remains of a decayed gland were removed, the wound healing in four weeks. The abscess, still covered by sound skin, was opened at the same time, and the gland in which it originated was dissected out. This

wound healed in ten days. At the second operation, a few weeks later, another unbroken suppurating swelling was dealt with in like manner, and the wound healed in three weeks. The result, as reported two years later, is that there is a puckered thickened cicatrix over the situation of the sinus, but that the scars of the gland abscesses that were not allowed to open spontaneously were linear, and fading in colour.

The lesson here taught is clear—that, apart from the question of ill-health dependent upon the presence of long continued discharge from a sinus or gland, it is of supreme importance in the question of scar that the offending gland or pus should be eradicated whilst the skin is sound, *i.e.*, before the skin has been damaged by inflammation and thinning, and, above all things, that we should anticipate the formation of a sinus which by the contraction of its lining of cicatrix draws to a pucker the scar in the skin.

Let me sum up the general conclusions at which I have arrived, as the result of the cases which have come under my observation during the last seven or eight years :—

(1) That our guiding principle should be, in the words of Dr. Allbutt, that "whenever septic material is contained in the system, we rest not until it be expelled, and its burrows laid open and disinfected."

(2) That in a very large number, in a majority, of these instances of scrofulous neck which have come under my care there was no evidence of any constitutional taint or weakness. The origin of the ailment was clear and defined, bad drains in many instances, scarlet fever, mumps, &c. The cases were often isolated instances in families free from any tendency to constitutional disease. Health was restored to perfect vigour after the destruction of all degenerate or septic material. The removal of the condemned glands was *very rarely* followed by any further enlargement of glands, or by the need of any repetition of operation.

(3) That surgical interference is not only justifiable, but demanded, in the following conditions :—

(*a*) Whenever a sinus resulting from a degenerate lymphatic gland exists.

(*b*) Whenever fluid, *i.e.*, pus, can be detected in connection with an enlarged lymphatic gland.

(*c*) Whenever there are enlarged glands accessible to surgery in a patient in whom a caseous or a suppurating gland has been already discovered.

(4) As to glands which, not having suppurated, nor having been proved to be caseous in any one instance, are an eyesore, or are accompanied by lowered health, the question of removal may be considered an open one. Probably in some instances the best method of treatment will be by "cautery-puncture."

Of this method I have no experience, but it is spoken of most favourably by Mr. Treves in his work on "Scrofula and its Gland Diseases," page 193, and he has employed it extensively.

As to the surgical treatment of these cases the following are my conclusions:—

(1) That surgery can secure the healing in a very few weeks of gland cavities and sinuses, even though they have existed for years, and of wounds resulting from the removal of caseous and suppurating glands.

(2) That in dealing with sinuses, gland abscesses, and decayed or semi-decayed lymphatic glands, the action of the surgeon must be vigorous and thorough.

(3) That the visible abscess, which would often be called and treated as a strumous suppurating gland, is as a rule merely a subcutaneous reservoir of pus, its source a degenerate gland being, *not sub-cutaneous*, but *sub-fascial*, *i.e.*, under the deep cervical fascia, and sometimes even sub-muscular, the communication between the two being a small opening just large enough to admit a probe or director.

(4) That it is utterly futile merely to incise or puncture such a sub-cutaneous abscess dependent upon a degenerate gland which lies beneath the deep fascia.

(5) That when a damaged or suppurating gland has been got rid of before the overlying skin is thinned by advancing suppuration, the resulting scar is insignificant, and not an eyesore.

(6) That in almost every instance in which the cure of the disease by operation was followed by a depressed cicatrix there had been previously a sinus discharging for months, or even for years.

(7) That in dealing with a sinus the channel should be enlarged by the knife or by "Bigelow's dilator" (*vide* infra), and the whole of its granulating surface should be scraped off. Where a sinus is shallow and covered by thin blue skin, this imperfect covering should be rasped away by the scraper, and any cutaneous overhanging edges should be trimmed off by scissors.

(8) That in dealing with a sinus or an abscess the surgeon should not rest content until he has discovered and eradicated the gland, always remembering that if it be not obvious, there is sure to be a small track leading through the deep fascia to the missing gland. This opening should be enlarged so as to admit the spoon of Lister's scraper (*vide* infra).

(9) That when a gland has not suppurated, and is moveable, it can be removed by very little dissection, almost by enucleation, and that, as the healing takes place rapidly, the resulting scar is very faint and insignificant.

(10) That when a gland has suppurated, and generally when it has become caseous, the capsule should be freely opened, and the contents should be eviscerated by Lister's scraper. This is sometimes easy, the evisceration leaving the stiff capsular case virtually cleaned out. Sometimes it is very difficult to get rid, even by most vigorous use of the scraper, of the tough living stump of gland toughly adherent to the capsule. At times it is well to dissect this remnant away by the scalpel, if the risk of injuring important structures be not too great.

(11) That sometimes, after such an evisceration leaving an empty capsular cavity, the finger detects in this wall a bulging of a contiguous gland. This should be pricked through the wall of the cavity, and so reached and eviscerated. In this way in more than one instance I have emptied from one external opening a group of three or four glands massed together, in close contact, and suppurating or otherwise broken down.

(12) That the following is a good plan of after-treatment. The cavity having been well cleansed by carbolic acid solution 1 in 40, or by carbolised glycerine 1 in 10, is charged with iodoform. An india-rubber drainage tube, reaching to the farthest recess, is fixed to one extremity of the wound, the edges of which are carefully and accurately brought together by fine catgut suture. The wound may then be covered by a pad of salicylic silk, or some other absorbent antiseptic substance. At the end of a week the india-rubber drainage tube should be removed. Where a gland and its capsule have been completely enucleated or dissected out it is not necessary to renew the drainage tube. In most other conditions the india-rubber tube should be replaced by one of gilt wire, which should remain until there is reason to suppose that all is healed except the track of the tube. This period will vary from three to eight or ten weeks.

The effectiveness of the scraping is much aided by the form of scraper. Lister's is, to my mind, much better than

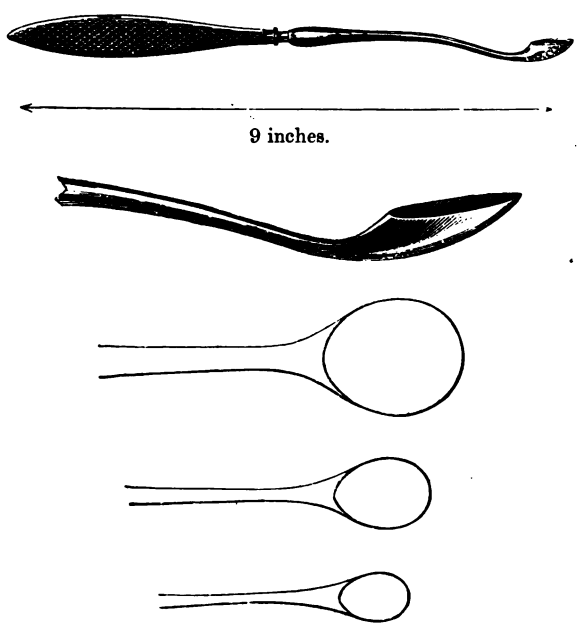

FIG. 1.—Lister's Scrapers.

Volckmann's. The cup is of a better shape—a large oval, almost circular—instead of a narrow oval, almost pointed. The handle is far superior, being a good double curve, and not straight, allowing the scoop to be swept round a cavity with more telling effect. (*Vide* Fig. 1.)

I have also referred above to a very valuable instrument but little known—Bigelow's "sinus dilator," represented in

Actual Size.

11 inches.

FIG. 2.—Bigelow's Sinus Dilator.

Fig. 2. The original was presented to me by Professor Bigelow during the meeting of the International Medical Congress in London. It is on the principle of a glove stretcher, and is of great value in enlarging sinuses, especially in regions where the knife cannot be used safely.

ILLUSTRATIVE CASES.

The details of the following cases in which I have operated on scrofulous glands are arranged for the sake of clearness under the following heads, viz.:—A.—Duration of disease before operation. B.—Predisposing and exciting causes so far as known, with note of the nature of the case, and the treatment employed prior to operation. C.—Treatment. D.—Results as to (*a*) how long in healing; (*b*) condition of scar; (*c*) subsequent enlargement of other glands; (*d*) effect on general health.

(1) Miss B., æt. 30. *Date of Operation*, October 17, 1877. A.—14 months. B.—None known; had been "in poor health" for some time; agglomeration of enlarged cervical glands, with commencing suppuration; treated with iodine externally and iodide of potassium internally. C.—Free incision; the caseating glands partly enucleated with the "spoon," and partly scraped out from their thickened capsule. D.—(*a*) Healing quite complete a month after operation. (*b*) Scar two years after, a white linear cicatrix, scarcely visible. (*c*) No further enlargement of glands. (*d*) Patient reports, "My health has greatly improved since the operation; indeed, I have been remarkably well since."

(2) John S., æt, 27. *Date of Operation*, October 20, 1877. A.—Several years. B.—Original exciting cause of swelling in neck not known; was going abroad on account of symptoms of commencing disease in lungs, but was advised by Dr. Allbutt before going to have the chronic discharging sinus in neck in connection with enlarged glands attended to; had had all possible forms of medicinal and local external treatment. C.—Sinus incised and enlarged, and curdy remains of degenerating gland tissue scraped out. D.—(*a*) Quite healed in five weeks from operation. (*b*) Scar (a year after) pale, non-adherent, and scarcely visible. (*c*) No further enlargement of glands. (*d*) General health greatly improved; no evidence of disease in lung; is now in perfectly robust health.

(3) Miss B., æt. 16. *Date of Operation*, August 29, 1878. A.—6 months. B.—Glands, left, enlarged after attack of mumps six months previously; a few weeks before operation they had commenced to suppurate. Treated by iodine paint and ointment, poultices, &c. C.—Two incisions, through which the enlarged mass of glands was very freely scraped. D.—(*a*) Healing complete in three weeks. (*b*) Scarcely any appreciable scar is left. (*c*) No further enlargement of glands. (*d*) No further illness of any kind.

(4) Miss G., æt. 8. *Date of Operation*, April 3, 1877. A.—13 months. B.—Had suffered from chronic sore throat and malaise from drain-poisoning, followed by enlargement of

glands in neck in which suppuration had commenced; treated by medicines, pills, and poultices. C.—Two incisions, much broken-down gland tissue scraped out; capsular investment left much thickened; no drainage-tube used. D.—(*a*) Healing not complete for nearly ten months. (*b*) Some puckering and depression of scar, and thickened cicatricial tissue in neighbourhood. (*c*) No further enlargement of glands. (*d*) Patient writes, "I have never had a day's illness since." February, 1885: Reported to be quite well, and as the strongest of three daughters.

(5) Miss B., æt. 8. *Date of Operation*, April 6, 1877. A.—7 months. B.—Swelling of cervical glands appeared in connection with ulcerated throat and enlarged tonsils; an abscess formed sub-cutaneously; operation advised by Dr. Allbutt; treated with poultices, &c.; sub-cutaneous abscess at first simply lanced; chronic feverishness and malaise following. C.—Superficial sinus enlarged, and hole found leading to deeper gland cavity, the contents of which were enucleated by the scraper. D.—(*a*) Quite healed within six weeks. (*b*) Very trifling scar left, white and non-adherent. (*c*) No further swelling of glands. (*d*) Uninterrupted good health since operation.

(6) Miss L., æt. 31. *Date of Operation*, August 14, 1877. A.—12 months. B.—A chain of glands beneath the jaw, above the clavicle and in axilla, enlarged during a subacute illness induced by nursing a case of typhoid in a house with all the drainage faulty; ordinary medicinal and local treatment. C.—*Two Operations: A.* Four enlarged glands enucleated by incision near jaw, and three or four others by a fresh incision above clavicle; *B.* Seven glands removed through incision in axilla, the larger glands of each set were caseating in centre. D.—(*a*) Cavities made in *Operation A* took nearly six weeks to heal; that of *Operation B* one month. (*b*) Scar near jaw very slightly depressed, soft, and white; scar above clavicle linear, white, no depression; scar in axilla, rather raised, white, non-adherent. (*c*) No subsequent swelling of glands. (*d*) General health now very good. March, 1885: Perfectly well.

(7) Miss H., æt. 7. *Date of Operation*, August 19, 1878. A.—18 months. B.—No exact cause known; had been in "weak health" for some time, always suffering from "colds"; swelling of cervical glands with formation of abscess, which was twice "lanced," and always discharging. C.—Sinus enlared, and remnant of gland, &c., scraped out. D. (*a*) Exact time required to heal not noted. (*b*) A white scar with slight pucker. (*c*) No farther enlargement of glands. (*d*) Health "very materially better since operation."

(8) Miss B., æt. 11. *Date of Operations*, January 23, and July 4, 1879. A.—8 months. B.—Chronic enlargement of cervical glands following attacks of sore throat (drain throat?); during six months a sinus in connection with these had been constantly discharging, and another abscess was about to point in another place; *previous treatment*, iodine, medicine, &c. C.—*Two Operations: A* (1) The old sinus enlarged and scraped, and an old rotten gland removed; (2) The abscess in connection with second gland incised, and the gland originating it dissected out; *B*, a third suppurating swelling similarly dealt with. D.—(*a*) *Operation A* (1) healed in four weeks, (2) healed in ten days; *Operation B*, healed in three weeks. (*b*) A puckered, thickened cicatrix over situation of old sinus; scars of other gland swellings that were not allowed to burst spontaneously, linear, and fading in colour. (*c*) No further gland enlargement. (*d*) Mother writes: "She has decidedly improved in health since."

(9) Tom B., æt. 9. *Date of Operation*, July 9, 1879. A.—Two-and-a-half months. B.—Brother to last case; similar history, &c.; one large swelling near angle of jaw with superficial abscess not yet opened. C.—Incision into superficial abscess which communicated with deep gland cavity beneath fascia; remnant of gland scraped out. D.—(*a*) Healed in rather under a month. (*b*) Scar very slight, linear, non-adherent. (*c*) No further swelling of glands. (*d*) "Is now in perfectly good health."

(10) Miss N., æt. 13. *Date of Operation*, April 4, 1878. A.—18 months. B.—An old sinus in neck communicating with mass of chronically enlarged glands; discharging more

than a year; health lately much impaired; child pale and sickly, and losing flesh; operation recommended by Dr. Allbutt. C.—A large suppurating cavity first scraped out, with remnants of gland, then three deeper caseating glands dissected out through the original wound. D.—(*a*) Quite healed in seven weeks. (*b*) Some induration of tissue round the scar, which is puckered. (*c*) No further enlargement of glands. (*d*) "Child's health recovered rapidly after operation, and is still very good."

(11) Miss S., æt. 20. *Date of Operation*, March, 1880. A.—7 or 8 years. B.—Degenerate lymphatic temperament with irregular menstruation, and chronic ill health from no obvious cause; the gland swelling first appeared after scarlet fever, and has since increased very much; all kinds of treatment had been tried; one small abscess had been incised by a surgeon and kept discharging for two years; operation advised by Dr. Allbutt. C.—Long incision over prominent part of swelling; four or five glands enucleated entire, and a sacculated thickened cavity containing others well scraped. D.—(*a*) Healed in two weeks, but surrounding thickened tissue took some weeks further to atrophy. (*b*) Mother writes, "The mark of the cut is hardly observable, but there is a little pucker over the place that used to discharge so long." (*c*) "No other swelling has appeared." (*d*) "She is much stronger and better every way since the operation." She died suddenly in a faint, having been in good health, about two years after the operation.

(12) Andrew T., æt. 9. *Date of Operation*, A.—2 years. B.—Glands enlarged on each side of neck and under jaw; first noticed after measles seven years ago; some simply enlarged, others about to suppurate. C.—*Three Incisions: A*, Under jaw, through which seven or eight were dissected out; *B* and *C*, On each side of neck gland masses about to suppurate; cavities emptied by scraper. D.—(*a*) *A* healed in six weeks; *B* healed under seven weeks; *C* healed in rather more than two months. (*b*) Cicatrices non-adherent, and becoming pale; no puckering. (*c*) No further enlargement of glands. (*d*) Uninterrupted good health since operation.

(13) Alice T., æt. 3. *Date of Operation*, July 16, 1880. A.— . B.—No known cause; somewhat acute swelling of mass of glands on left side of neck, with formation of sub-cutaneous abscess. C.—Free incision; mass of softening glands enucleated with scraper. D.—(*a*) Healed in three weeks. (*b*) Faint linear cicatrix. (*c*) A second operation required. (*d*) Child perfectly well in health since.

(14) Miss C., æt. 10. *Date of Operation*, December 23, 1880. A.— . B.—Chronic enlargement of cervical glands, following sore throat and drain poisoning; subcutaneous abscess about to burst. C.—Free incision; mass of softened sloughy tissue evacuated; a hole in deep fascia enlarged, leading to remains of enlarged glands, which were scraped out. D.—(*a*) Healed in eight weeks. (*b*) Very slight linear scar. (*c*) No other enlargement of glands. (*d*) General health now perfectly good.

(15) Miss H., æt. 24. *Date of Operation*, April 17, 1881. A.— . B.—Swelling of glands in neck (both sides), first began in connection with obscure chronic illness, afterwards traced to drain poisoning; operation advised by Dr. Allbutt. C.—*Four Operations: A*, Free incision over mass of partly caseous, partly suppurating glands on left side of neck, several glands enucleated, and parts of others scraped out, others deeper could not be reached; *B*, Four glands enucleated from right side; *C*, Incision of operation *A* re-opened four months after, to scrape out fresh enlarged gland. D.—(*a*) *Operation B* healed in two weeks; *Operation A* healed in nearly two months; *Operation C*, in three weeks. (*b*) Cicatrix of *B* linear and non-adherent; no indication of swelling having existed; cicatrix of *A* and *C* somewhat puckered, but no further swelling has occurred, and the thickening of surrounding parts is being slowly absorbed.

(16) Miss H., æt. 17. *Date of Operation*, May 5, 1881. A.—Several years. B.—Extensive sub-cutaneous ulceration from old suppurating cervical glands with discharging sinuses; health much impaired by constant discharge, &c. C.—Sinuses freely opened and well scraped; some remnants of gland excised. D.—(*a*) Healed in six weeks. (*b*) Extensive

puckered scar from old attempts at healing. (*c*) No further enlargement. (*d*) Health greatly improved since operation.

(17) Mrs. W., æt. 27. *Date of Operation*, May 17, 1881. A.—4 years. B.—Old chronic enlargement of glands in neck; two years ago was "cut" by a medical man, has been discharging ever since; large unhealthy granulating surface leading to cavity; a second swelling has existed for six months; treated by all kinds of applications, poultices and medicines. C.—Granulating surface scraped and cavity communicating with it emptied of degenerated gland material; second swelling incised and two large glands dissected out. D.—(*a*) Healed in five weeks. (*b*) Adherent scar over old sinus; faint linear scar over site of recent swelling. (*c*) No other swelling of glands. (*d*) General health very greatly improved since operation.

(18) Miss H., æt. 17. *Date of Operation*,
A.—9 months. B.—No known cause; large mass of glands at side of neck with sub-cutaneous abscess. C.—Free incision; three or four degenerated glands enucleated, and much broken-down cheesy matter scraped out. D.—(*a*) Healed in six weeks. (*b*) A very pale linear scar about $1\frac{1}{2}$ inch in length is all that is visible. (*c*) No further swelling of glands. (*d*) Health continues perfectly good.

(19) Miss L., æt. 15. *Date of Operation*,
A.—4 years. B.—A large swelling has existed at side of neck between four and five years; had seemed to increase for some weeks prior to operation, and a fluctuating swelling had formed; cause of original swelling uncertain; operation advised by Dr. Allbutt. C.—Free incision into cavity containing creamy pus; some deep calcareous and caseous glands feeding the pus cavity dissected out. D.—(*a*) Healed in three weeks. (*b*) Scarcely any visible scar. (*c*) No further gland enlargement. (*d*) Is now in very vigorous health.

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